

[THREE-DIMENSIONAL MEMORY STRUCTURE AND MANUFACTURING METHOD THEREOF]

Abstract

A three-dimensional memory structure and manufacturing method thereof is provided. A first stack layer is formed over a substrate. The first stack layer includes, from the substrate upwards, an n-type polysilicon layer, a conductive layer, an anti-fuse and another n-type polysilicon layer. The first stack layer is patterned to form a first stack circuit. Thereafter, a second stack layer is formed over the first stack circuit. The second stack layer includes, from the first stack circuit upwards, a p-type polysilicon layer, a conductive layer, an anti-fuse and another p-type polysilicon. The second stack layer is patterned to form a second stack circuit that crosses over the first stack circuit perpendicularly. The aforementioned steps are repeated to form more stack circuits above the substrate and hence produce a three-dimensional structure.